

## Case 2858

***Hydrophoria* Robineau-Desvoidy, 1830 (Insecta, Diptera): proposed designation of *Musca lancifer* Harris, [1780] as the type species**

Graham C.D. Griffiths

*Department of Entomology, University of Alberta, Edmonton, Alberta T6G 2E3, Canada*

**Abstract.** The purpose of this application is to designate *Musca lancifer* Harris, [1780] (a senior subjective synonym of *Anthomyia conica* Wiedemann, 1817) as the type species of *Hydrophoria* Robineau-Desvoidy, 1830. This will conserve the universal usage of *Hydrophoria* for a genus in the ANTHOMYIIDAE; Coquillett (1910) cited a type species which would make the name applicable to a genus of MUSCIDAE.

---

1. The genus *Hydrophoria* was described by Robineau-Desvoidy (1830, p. 503) with nine nominal species, all new. The descriptions of at least two of the species (*H. tibialis* and *H. sagittariae*, p. 505) are compatible with the common European anthomyiid described by Harris ([1780], p. 126, pl. 36) as *Musca lancifer* and by Wiedemann (1817, p. 79) as *Anthomyia conica* 'Meig.'. *Hydrophoria* has been long and universally used for a genus in the ANTHOMYIIDAE, but its type species has not been validly fixed in this sense.

2. Macquart (1835, p. 297) discussed *Hydrophoria*, giving '*Hydrophoria conica* — *H. tibialis* ? Rob.D.' as the first species. Unfortunately Macquart's action does not constitute a type designation, but *Hydrophoria* has been used ever since in the sense which could be typified by *Anthomyia conica* Wiedemann, 1817 (see para. 4 below).

3. Westwood ([1840], p. 142) designated *Musca nigrita* Fallén, 1823 (p. 60) as the type, but this was not an originally included nominal species (by 1830 Robineau-Desvoidy had been unable to obtain a copy of Fallén's work: see p. 18 of his *Essai*). Coquillett (1910, p. 554) noted Westwood's selection of *M. nigrita*, stating this to be synonymous with *M. vespertina* Fallén, 1823 (p. 58) and Robineau-Desvoidy's *H. littoralis* (an originally included species) as follows: '*Hydrophoria* ... Type, *Musca vespertina* Fallén (as *littoralis*, new species), the last species, by designation of Westwood ... (as *nigrita* Fallén). Syn., *Hebecnema* Schnabl, 1889'. This synonymy did not derive from Westwood, who had not mentioned *Hydrophoria littoralis* at all but had merely recorded Robineau-Desvoidy's use (p. 503) of the Latin term 'Aricinae littorales' for a group of genera including *Hydrophoria*. Macquart (1835, p. 301) however had earlier synonymized *H. littoralis* with *M. nigrita* (but not with *M. vespertina*).

4. Rondani (1866, p. 72) gave *Anthomyia conica* as the type species in accordance with the usage of *Hydrophoria* which had already become established. This is invalid because *A. conica* was not an originally included nominal species, but nevertheless it has been cited as the type by later authors (e.g. Kloet & Hincks, 1945, p. 423) and has been included in *Hydrophoria* by all authors during the present century.

5. Coquillett's action (para. 3 above) has been accepted as a valid (although inadvertent) designation of an originally included nominal species (i.e. *H. littoralis*), but this would have the highly unsatisfactory consequence of transferring the name *Hydrophoria* to a genus in the MUSCIDAE. No author has been willing to make this transfer. Hockett (1965, p. 863) well summarized the situation as follows: '*Hydrophoria* Robineau-Desvoidy, 1830: 503. Type-species, *littoralis* Robineau-Desvoidy (Coquillett, 1910b: 554). The identity of *littoralis* is in doubt, as is the identity of an earlier-suggested senior synonym, *nigrita* Fallén, which has been variously referred to such widely different genera as *Hebecnema* and *Musca*. Common usage of *Hydrophoria* has followed the interpretation of Rondani, 1866a: 72 (1866: 5) who designated as type species *Anthomyia conica* Wiedemann, a species not originally included. The author prefers to maintain this established usage of *Hydrophoria*, either by arbitrarily considering *littoralis* as a true *Hydrophoria*, or if necessary by applying to the I.C.Z.N. to fix the type species as *conica* Wiedemann'.

6. Hennig (1969, p. 251) followed Hockett's suggestion by arbitrarily 'synonymizing' *H. littoralis* Robineau-Desvoidy (p. 506) with *A. conica*, a stratagem to allow *conica* to be taken as the valid name of the type species of *Hydrophoria*. This is unacceptable, however, because specialists on the MUSCIDAE continue to assume (on the basis of the original description) that *Hydrophoria littoralis* was a species of *Hebecnema* Schnabl, 1889. In Pont's (1986) catalogue of Palaearctic MUSCIDAE the name *littoralis* is listed (p. 160) as a synonym of *Hebecnema nigra* (Robineau-Desvoidy, 1830, p. 501).

7. Evenhuis & Thompson (1990, p. 245) listed a previously overlooked designation of *Anthomyia conica* as the type species of *Hydrophoria* by Duponchel (1845, p. 760), in the form '*H. conica* (*Minca* id. Fallen, *H. tibialis* ? R.-D.); *Minca* is evidently an error for *Musca*. However, the validity of this designation is unfortunately negated by the question mark. Duponchel was doubtless following Macquart (see para. 2 above) in regarding *A. conica* as characteristic of *Hydrophoria* but in being unsure that Robineau-Desvoidy (p. 505) had applied his name *tibialis* to this species. Although formally invalid, Duponchel's designation confirms the early establishment of the tradition of regarding *A. conica* as the 'typical' species of *Hydrophoria*.

8. This application is made in order to preserve the concept of *Hydrophoria*, established since the time of Macquart (1835), Duponchel (1845) and Rondani (1866), as typified by *Anthomyia conica* Wiedemann, 1817. Pont & Michelsen (1982, p. 34) consider *A. conica* to be a junior subjective synonym of *Musca lancifer* Harris, [1780], and the combination *Hydrophoria lancifer* has been in use by anthomyiid specialists during the past decade (e.g. Fan et al., 1988, p. 113). I therefore propose that *M. lancifer* be designated as the type species of *Hydrophoria*.

9. The International Commission on Zoological Nomenclature is accordingly asked:

- (1) to use its plenary powers to set aside all previous fixations of type species for the nominal genus *Hydrophoria* Robineau-Desvoidy, 1830, and to designate *Musca lancifer* Harris, [1780] as the type species;
- (2) to place on the Official List of Generic Names in Zoology the name *Hydrophoria* Robineau-Desvoidy, 1830 (gender: feminine), type species by designation in (1) above *Musca lancifer* Harris, [1780];

- (3) to place on the Official List of Specific Names in Zoology the name *lancifer* Harris, [1780], as published in the binomen *Musca lancifer* (specific name of the type species of *Hydrophoria* Robineau-Desvoidy, 1830).

## References

- Coquillett, D.W. 1910. The type-species of the North American genera of Diptera. *Proceedings of the United States National Museum*, 37: 499–647.
- Duponchel, P.A.J. 1845. *Hydrophoria*. P. 760 in d'Orbigny, C.V.D. (Ed.), *Dictionnaire Universel d'Histoire Naturelle*, vol. 6. 792 pp. Renard, Paris.
- Evenhuis, N.L. & Thompson, F.C. 1990. Type designations of genus-group names of Diptera given in d'Orbigny's *Dictionnaire Universel d'Histoire Naturelle*. *Bishop Museum Occasional Papers*, 30: 226–258.
- Fallén, C.F. 1820–1823. Monographia Muscidum Sveciae. 94 pp. in: *Diptera Sveciae*, vol. 1. Berlingianis, Lundae.
- Fan, Z.-D. et al. 1988. *Economic insect fauna of China*. Fasc. 37. Diptera: Anthomyiidae. xiv, 396 pp., 10 pls. Science Press, Beijing.
- Harris, M. 1776–[1780]. *An exposition of English insects*. 166 pp. Author, London.
- Hennig, W. 1969. Gattung *Hydrophoria* Robineau-Desvoidy. Pp. 251–288 in Lindner, E. (Ed.), *Die Fliegen der paläarktischen Region*, vol. 7 (Lieferung 278). Schweizerbart, Stuttgart.
- Huckett, H.C. 1965. Subfamily Anthomyiinae. Pp. 842–869 in Stone, A. et al. (Eds.), *A catalog of the Diptera of America north of Mexico*. United States Department of Agriculture, Handbook no. 276. 1696 pp.
- Kloet, G.S. & Hincks, W.D. 1945. *A check list of British insects*. 483 pp. Authors, Stockport.
- Macquart, P.J.M. 1835. *Histoire naturelle des insectes*. Diptères, vol. 2. 703 pp. Roret, Paris.
- Pont, A.C. 1986. Muscidae. Pp. 57–215 in Soós, A. & Papp, L. (Eds.), *Catalogue of Palaearctic Diptera*, vol. 11. 346 pp. Akadémiai Kiadó, Budapest.
- Pont, A.C. & Michelsen, V. 1982. The Muscoidea described by Moses Harris (Diptera: Fanniidae, Scathophagidae, Anthomyiidae, Muscidae). *Steenstrupia*, 8: 25–46.
- Robineau-Desvoidy, J.-B. 1830. Essai sur les Myodaires. *Mémoires présentés par divers savants à l'Académie Royale des Sciences de l'Institut de France*, (2)2: 1–813.
- Rondani, C. 1866. Anthomyiinae Italicae collectae distinctae et in ordinem dispositae. *Atti della Società Italiana di Scienze Naturali*, 9: 68–217.
- Westwood, J.O. [1840]. *Synopsis of the genera of British insects*, pp. 97–154. Published with *An introduction to the modern classification of insects ...*, vol. 2, part 16 (pp. 401–587). Longman, Orme, Brown, Green & Longman, London.
- Wiedemann, C.R.W. 1817. Neue Zweiflügler (Diptera Linn.) aus der Gegend um Kiel, beschrieben vom Herausgeber. *Zoologisches Magazin*, 1: 61–86.